PRE-PEELED POTATOES FOR COMMERCIAL USE By R. L. Olson and R. H. Treadway

It is not possible to develop a universal formula for treating peeled or cut potatoes because raw material, processing equipment, packaging material, and storage conditions are variable and will influence results. Thus, experiments should be made simulating equipment and storage conditions to be used before commercial application of any pre-peeling operation.

As a guide to such experiments, the following treatments are suggested without implication of any recommendation. In general, these treatments have preserved peeled potatoes for about a week in cold storage.

Treatment 1: A thirty-second dip in a 1.7% solution of sodium bisulfite.

Treatment 2: A thirty-second dip in a solution of 0.5% sodium bisulfite and 0.5% citric acid.

Longer dipping time or stronger solutions strengthen the preservative action. However, too strong treatments may adversely affect the flavor of the product. If acid strength is too great, the product tends to leak in storage.

Although treatment in sulfite solutions appears to be an adequate method of preservation for peeled and cut potatoes, legal restrictions in some areas prevent its use. In some instances a waiver may be obtained on the basis of the small amount of sulfur dioxide present as compared to the sulfite content of other common food commodities (such as dried cut fruits, golden bleached raisins, and white wines). As an alternate process that does not require sulfite, treatment with acid may give protection adequate for prepeeling operations. In laboratory experiments, peeled potatoes have been preserved for 4 to 5 days by a three-minute dip in a one per cent solution of hydrochloric acid.